Gulf of Mexico Harmful Algal Bloom Bulletin

14 December 2006

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: December 11, 2006

Conditions Report

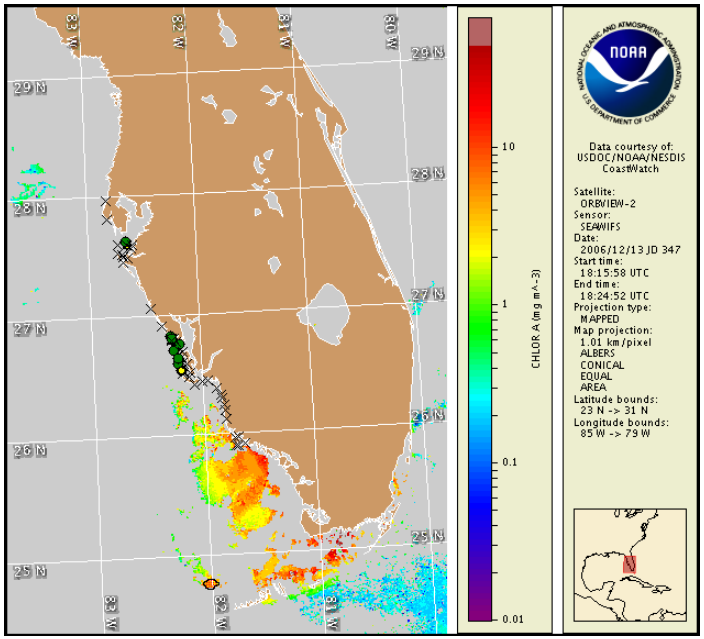
A harmful algal bloom has been identified in patches from southern Pinellas to northern Lee County. Tonight and Friday moderate impacts are possible in southern Charlotte County and low impacts are possible in northern Lee County. No other impacts are expected throughout the bloom region today through Sunday.

Analysis

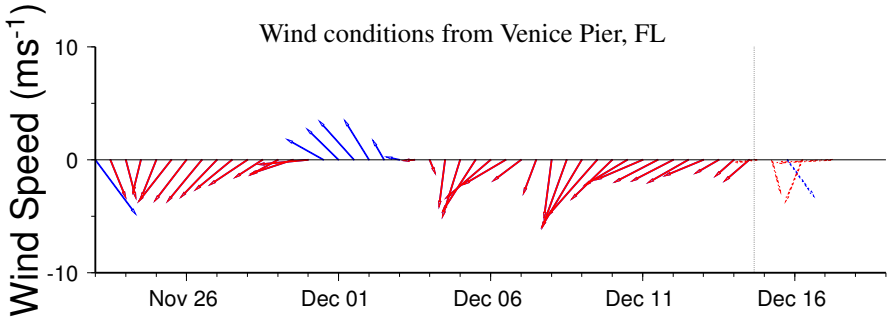
A harmful algal bloom continues to be present in patches along the SW Florida coast, with remaining concentrations identified alongshore in northern Manatee County, southern Charlotte County and northern Lee County. *K. brevis* samples collected alongshore SW Florida this week (FWRI, 12/11-13) from Pinellas through Collier County were reported as background concentration or not present, with one very low concentration identified at Redfish Pass, Lee County. In addition, *K. brevis* identified at Gasparilla Pass, southern Charlotte County and Captiva Pass, northern Lee County have decreased from low to medium concentrations to background concentrations over the past 10 days. Recent satellite imagery has been predominately obscured by clouds throughout the present bloom region, limiting analysis. According to a wind transport model, portions of the bloom may have migrated northward. Upwelling conditions continue to be favorable throughout the weekend; however intensification of the bloom alongshore is unlikely.

In the Florida Keys region FWRI reported not present *K. brevis* samples north of the lower Keys between Little Pine Key and Sugarloaf Key on 12/11. Chlorophyll levels appear elevated in a patch up to 11μg/L approximately 9-12nm northwest of Sugarloaf Key at 24°50.8'N 81°37.4'W, and up to 5μg/L in a patch northwest of Key West at 24°45.7'N 81°56.3'W. Continued offshore sampling is recommended, as the bloom affecting portions of southwest Florida was shown to have transported offshore over the past several weeks according to satellite imagery and may have migrated south towards the lower Keys. Easterly winds should minimize further transport of *K. brevis* concentrations closer to shore.

Fisher, Fenstermacher



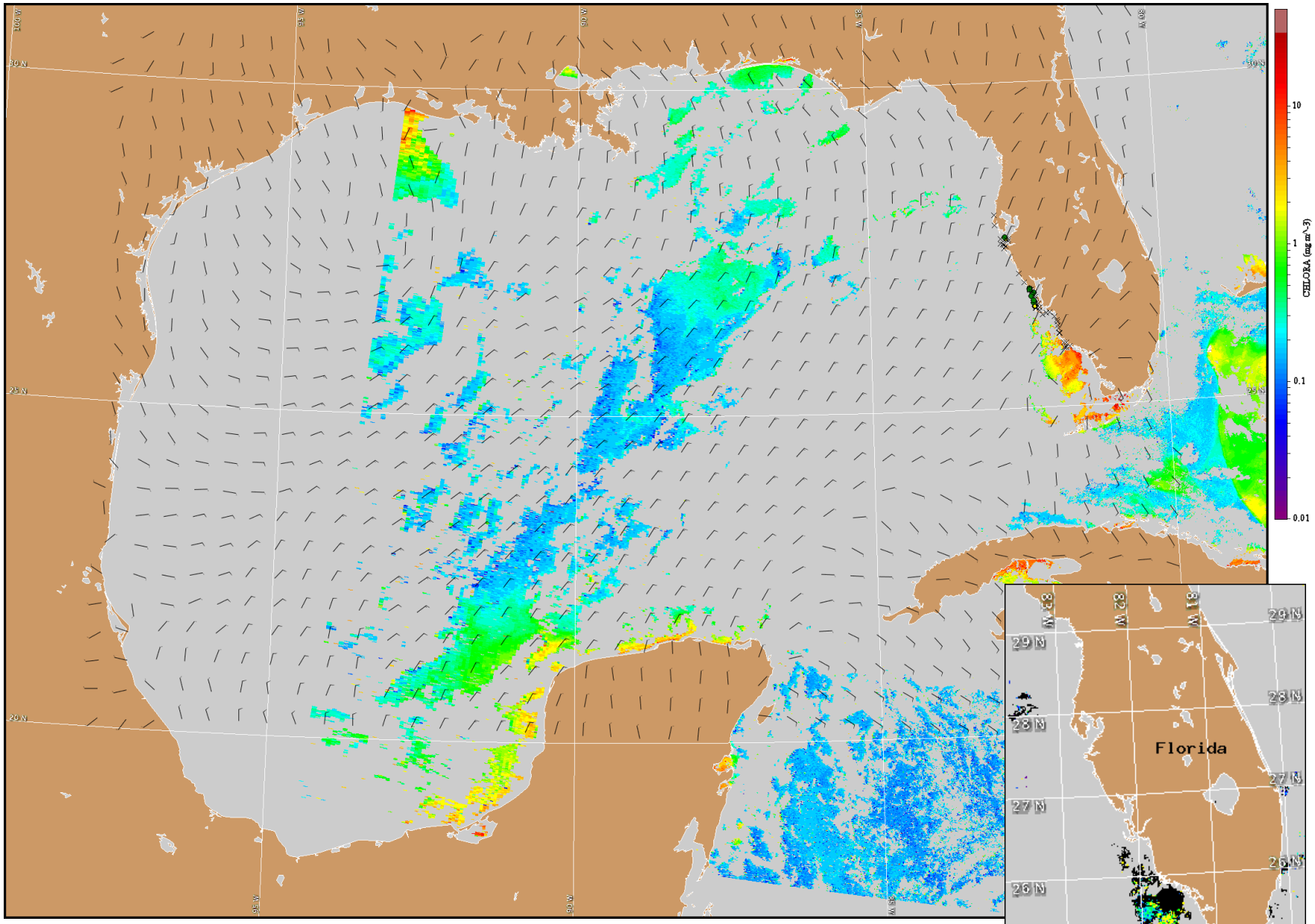
Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration categories and corresponding cell count values from Florida Fish and Wildlife Research Institute. For a key to the cell concentration descriptions, visit http://research.myfwc.com.Cell concentration sampling data from December 4-13 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: East to southeast wind today (5-15kts, 3-8m/s), becoming variably southwest to west tonight. Northerly to northwesterlies (10-15kts, 5-8m/s) on Friday, shifting northeasterly Friday night through Saturday. Easterly winds (15kts) expected Sunday and Monday.

Keys: Easterlies today through Saturday (10kts, 5m/s), with southeasterlies possible Friday night. Northeasterly to easterly winds Sunday and Monday (10-15kts, 5-8m/s).



Satellite chlorophyll image and forecast winds for December 15, 2006 12Z with cell concentration sampling data from December 4-13 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Verifi ed HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Sand Key, FL